Electronic TUBE

6SG7
Description and Rating
PENTODE

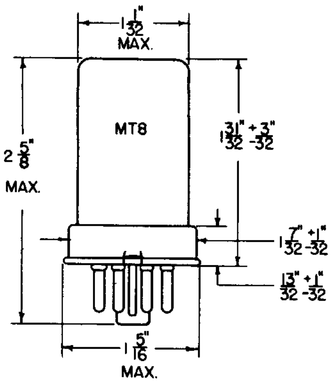
GENERAL DESCRIPTION

Principal Application: The 6SG7 is a remote-cutoff pentode designed for use as a high-gain radio- or intermediate-frequency amplifier. Features of the tube include high transconductance, low grid-plate capacitance, and a dual cathode connection to reduce undesired coupling between cathode circuits.

Cathode	Coated Unipotential
Heater Voltage (A-C or D-C)	6.3 Volts
Heater Current	0.3 Ampere
Envelope	MT-8, Metal Shell
Base	B8-21, Small Wafer Octal 8-Pin

Mounting Position	Any	
Direct Interelectrode Capacitances: #		
Grid 1 to Plate (Max)	0.003	μμf
Input	8.5	μμf
Output	7.0	μμf

PHYSICAL DIMENSIONS

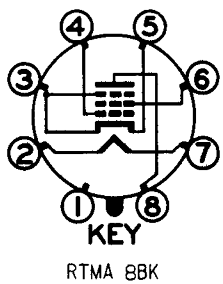


RTMA 8-1

TERMINAL CONNECTIONS

Pin 1 - Shell and Internal Shield
Pin 2 - Heater
Pin 3 - Cathode and Grid Number 3 (Suppressor)
Pin 4 - Grid Number 1
Pin 5 - Cathode
Pin 6 - Grid Number 2 (Screen)
Pin 7 - Heater
Pin 8 - Plate

BASING DIAGRAM



RTMA 8BK
BOTTOM VIEW

MAXIMUM RATINGS

DESIGN CENTER VALUES

Plate Voltage	300	Volts
Screen Supply Voltage	300	Volts
Screen Voltage	200	Volts
Positive D-C Grid Number 1 Voltage	0	Volts
Plate Dissipation	3	Watts
Screen Dissipation	0.6	Watt
Heater-Cathode Voltage	90	Volts

Measured with pin 1 connected to pin 3

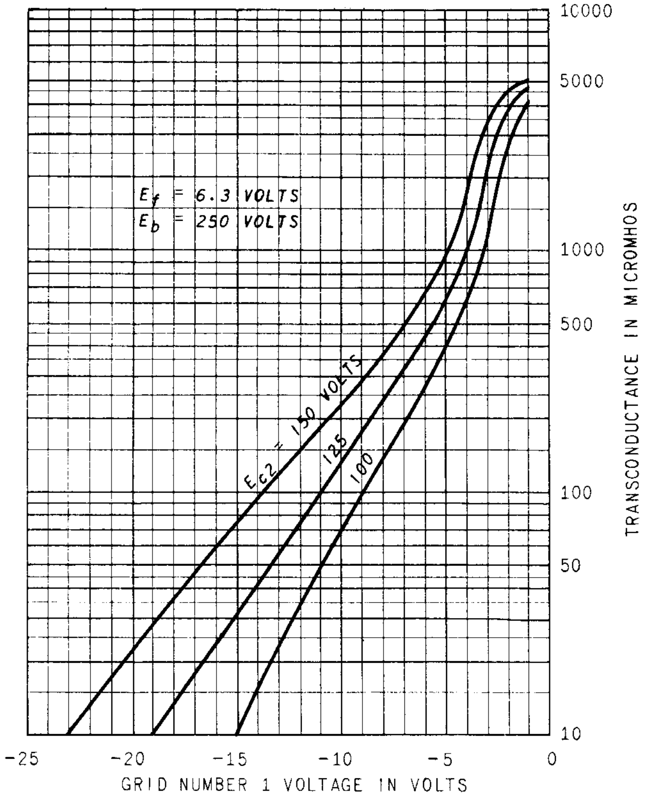
Supersedes ET-T334 dated 5-46

CHARACTERISTICS AND TYPICAL OPERATION

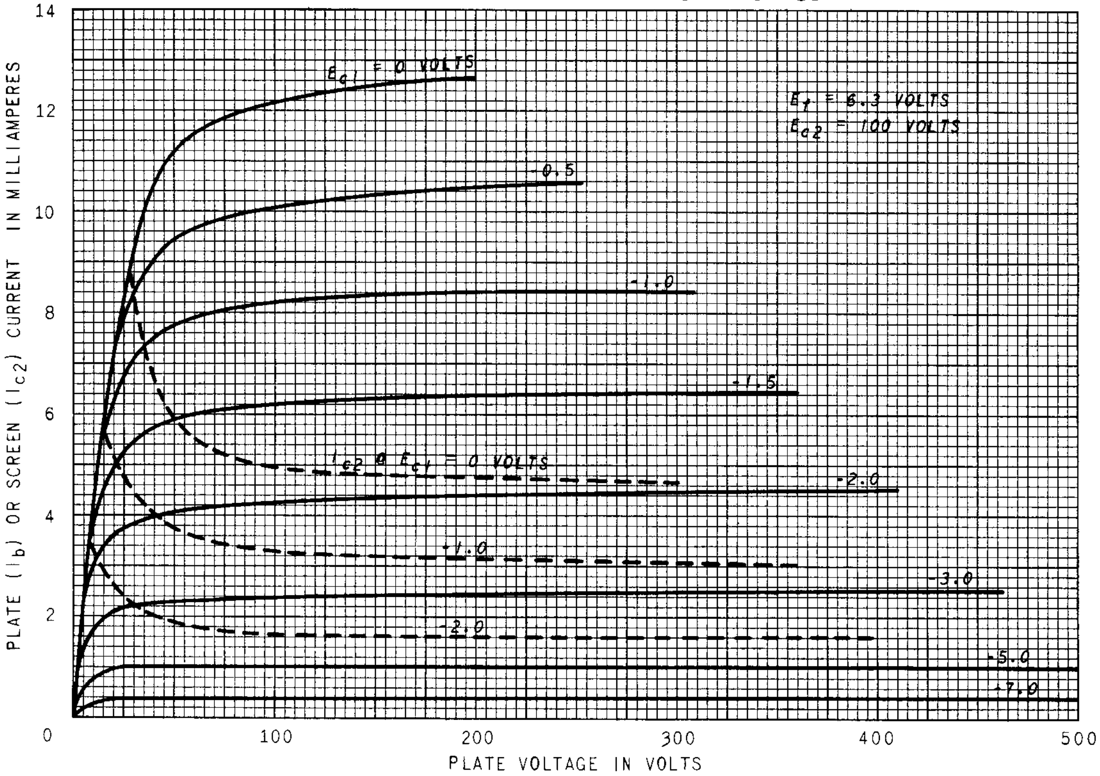
CLASS A_1 AMPLIFIER

Plate Voltage	100	250	250	Volts
Screen Voltage	100	125	150	Volts
Grid Number 1 Voltage	-1	-1	-2.5	Volts
Plate Resistance (Approx)	0.25	0.9	>1.0	Megohm
Transconductance	4100	4700	4000	Micromhos
Plate Current	8.2	11.8	9.2	Milliamperes
Screen Current	3.2	4.4	3.4	Milliamperes
Grid Number 1 Voltage (Approx) for G_m = 10 Micromhos	-15	-19	-23	Volts

AVERAGE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE CHARACTERISTICS

